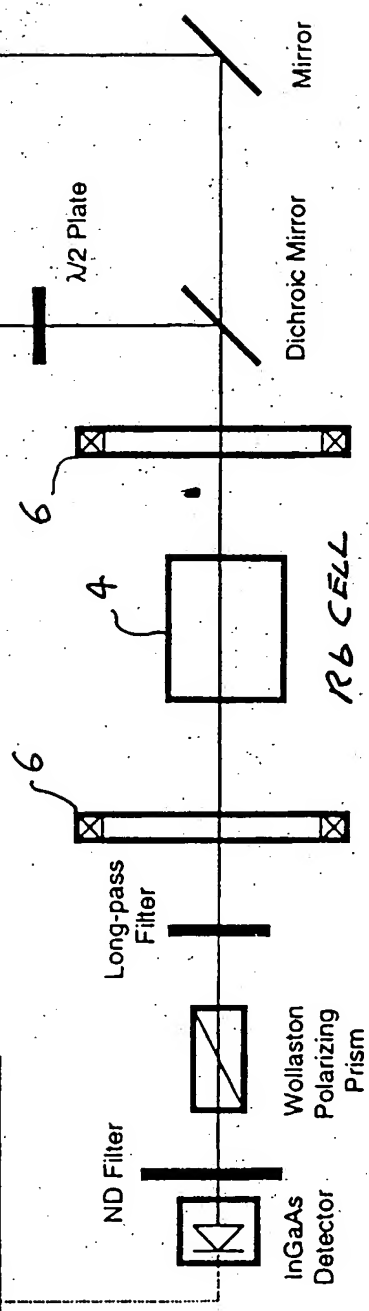
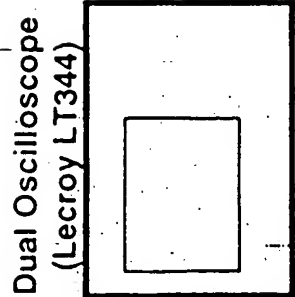


FIG. 1A

780nm PUMP LASER  
 NEW FOCUS  
 VORTEX 6013  
 Tunable (1446-1557 nm)  
 Characterization Laser  
 (New Focus Velocity 6326)



Magnetic Ring (Dexter Perm Mag PP96-1213-1)      Magnetic Ring (Dexter Perm Mag PP96-1213-1)

FIG. 1B

Pump Laser Wavelength / Power: 852.112 nm ( $6^2S_{1/2} - 6^2P_{3/2}$ ) /  $\sim 10$  W/cm<sup>2</sup>  
Cs Cell Temperature / Length: 120 C° / 1 cm  
Magnetic Field: 80 Gauss

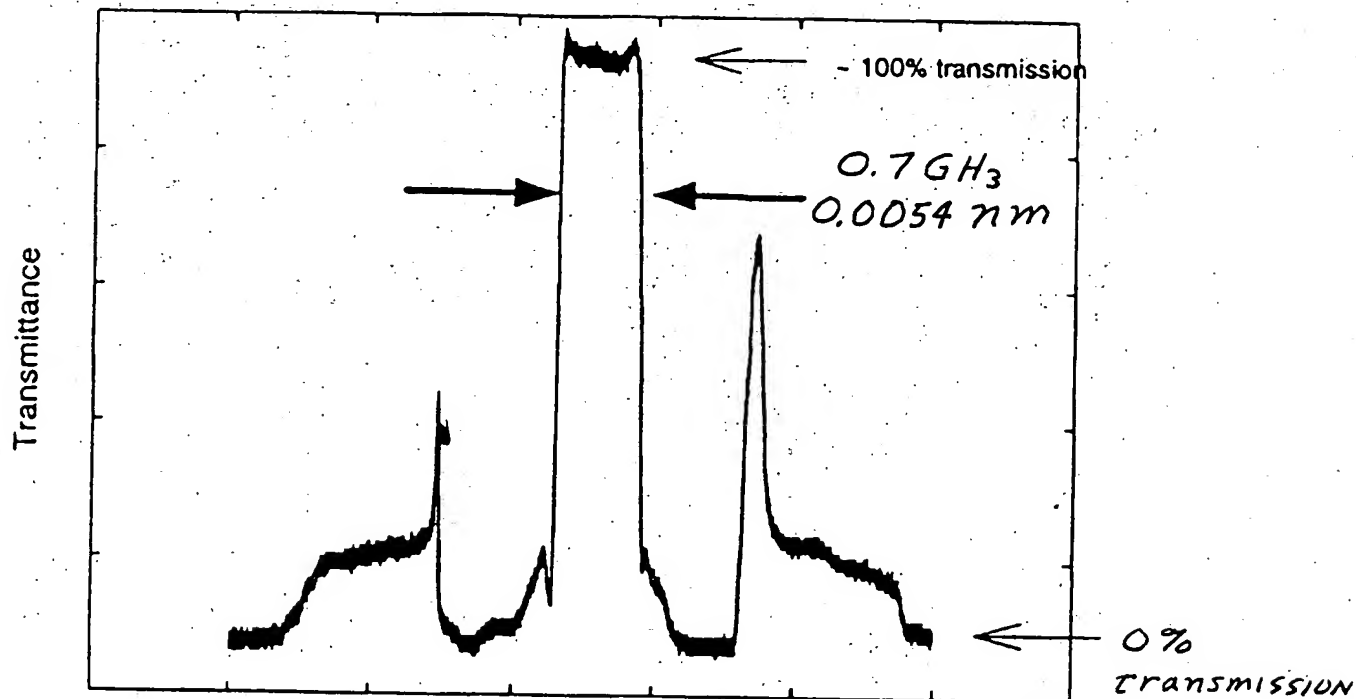
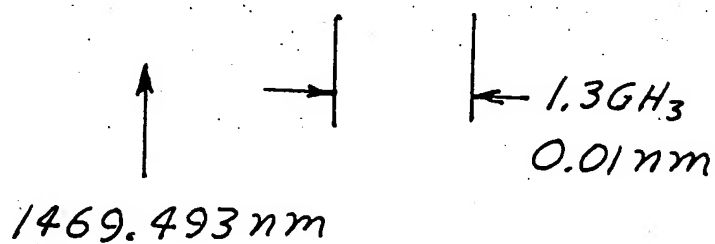


FIG. 2



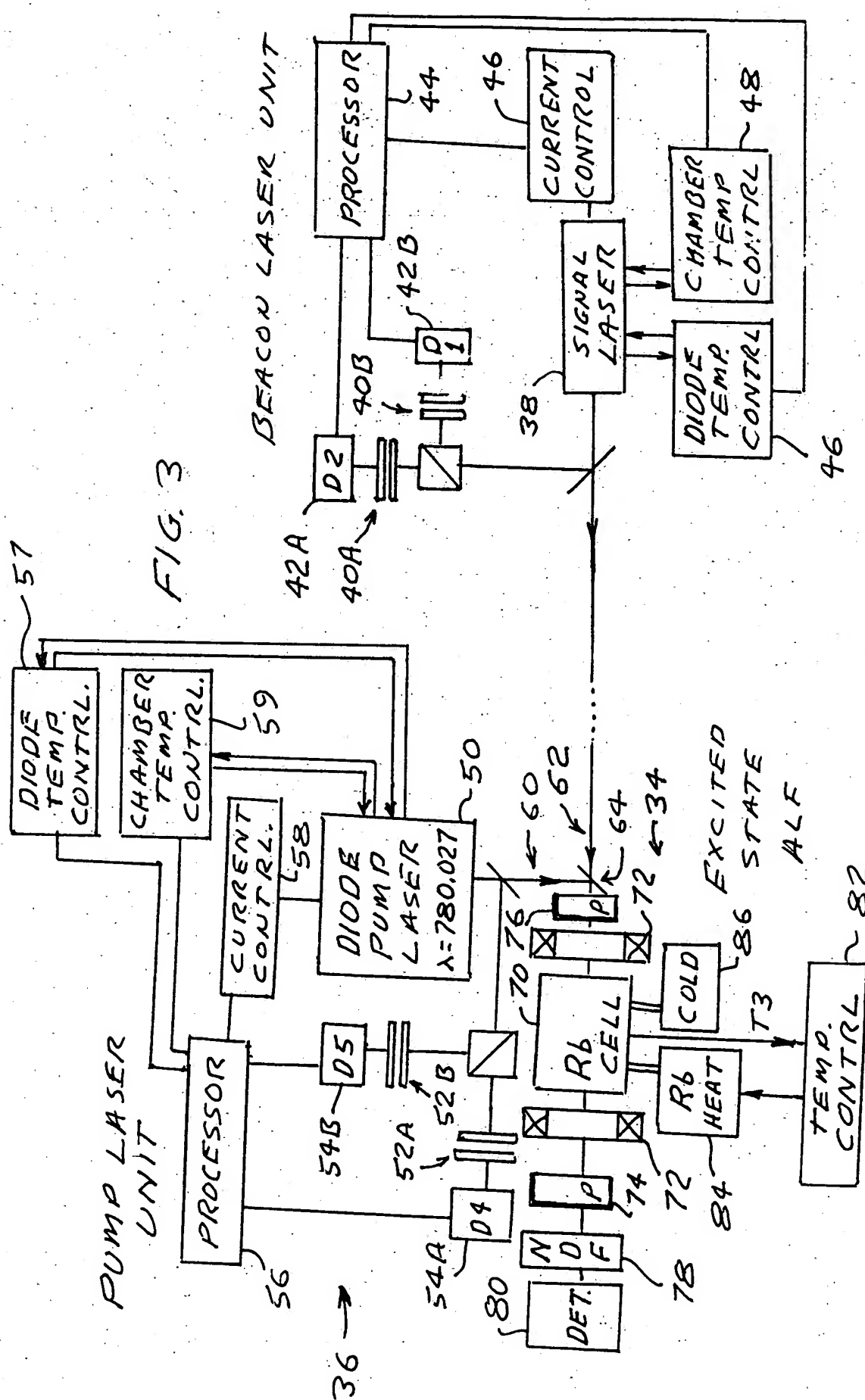


FIG. 3A

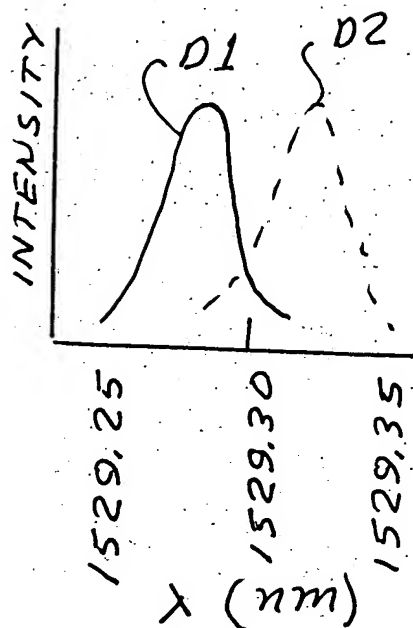


FIG. 3B

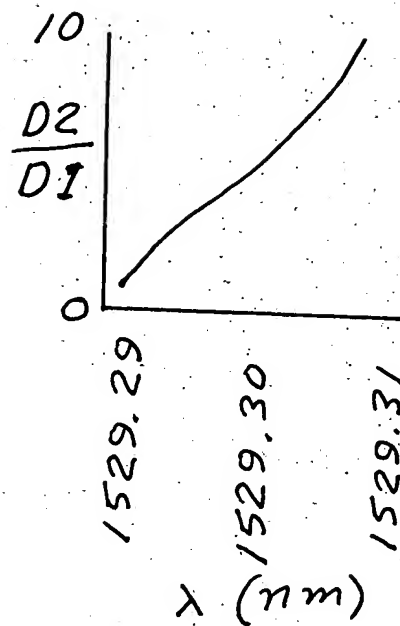


FIG. 3C

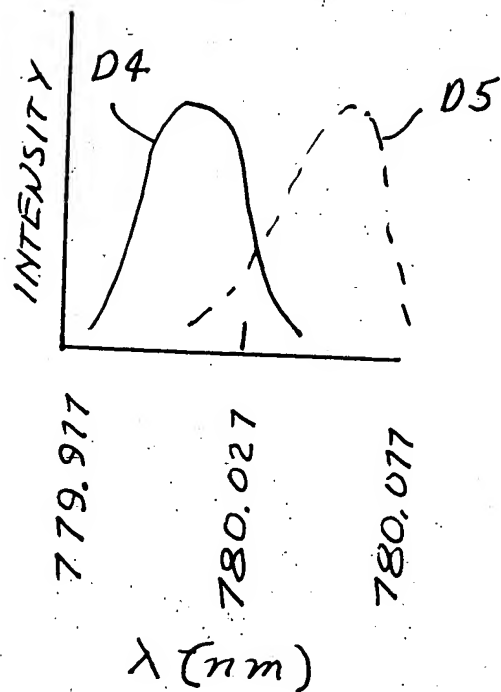
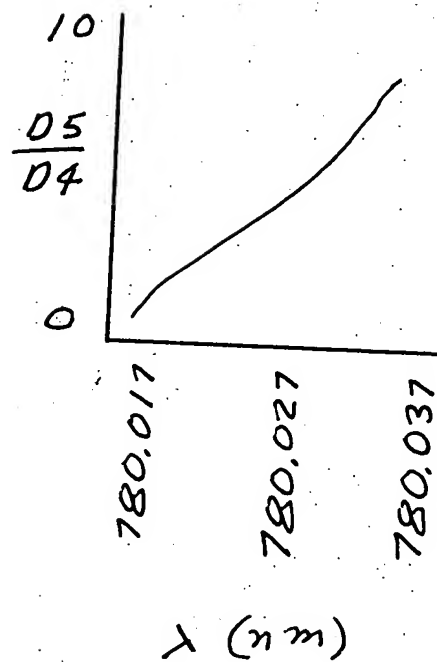


FIG. 3D



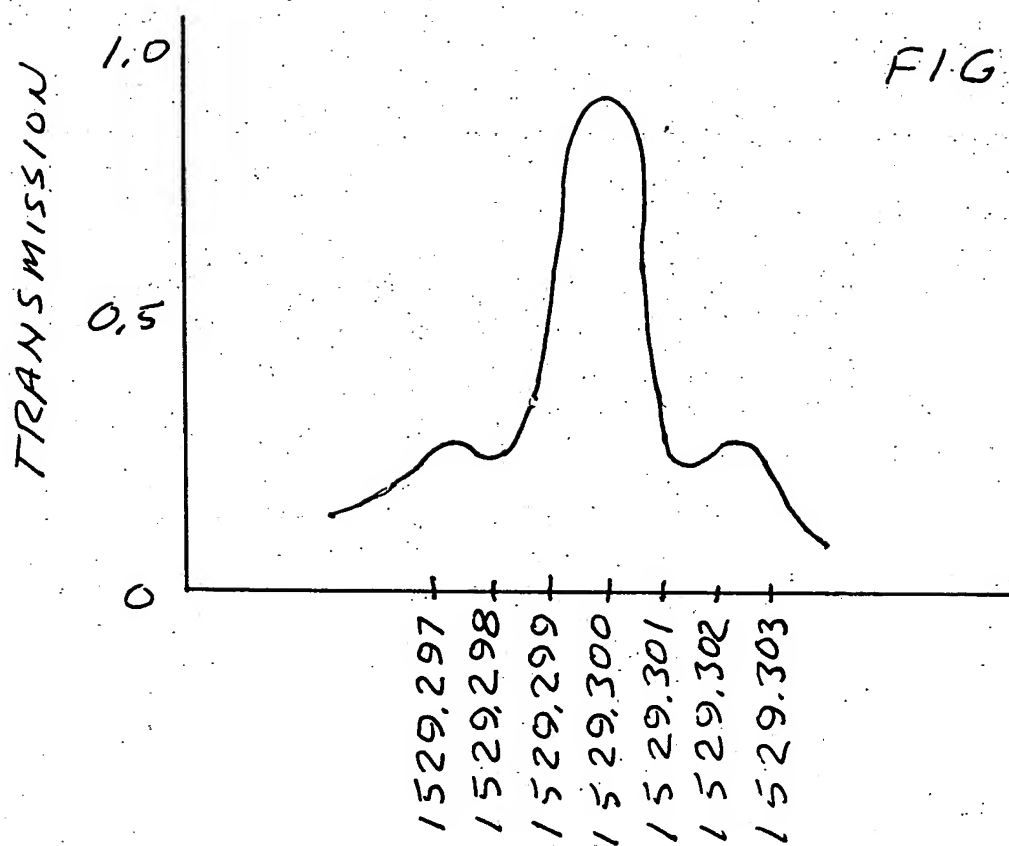
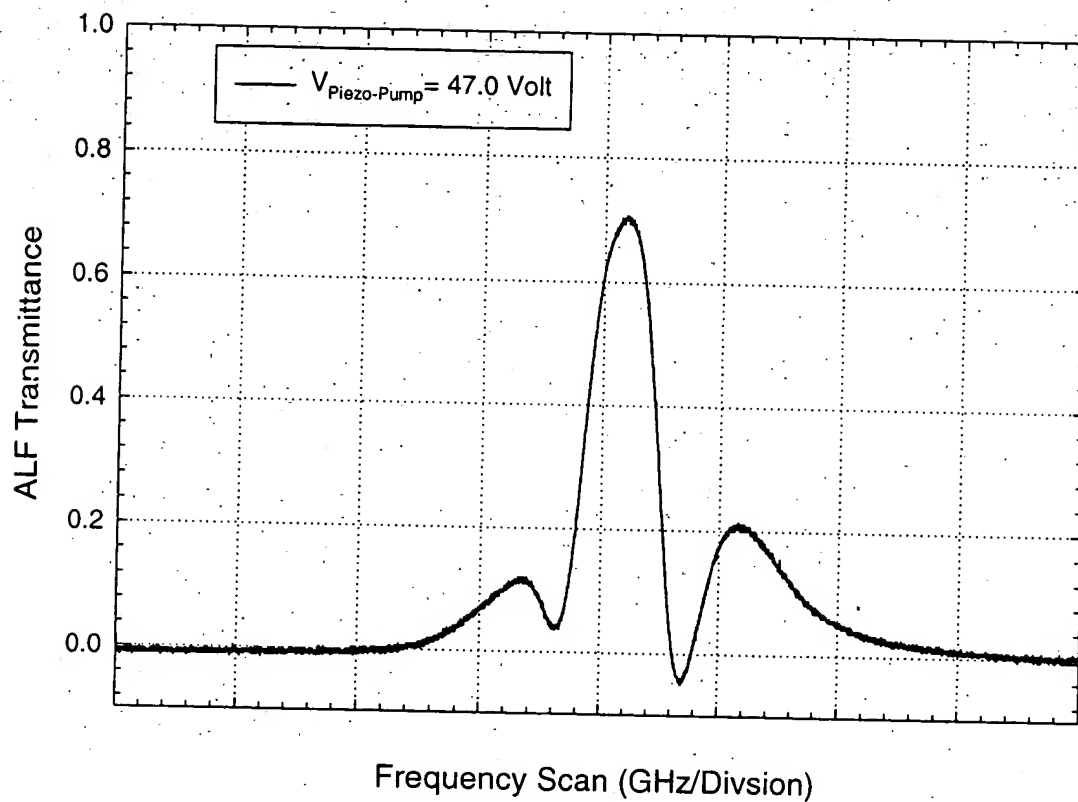


FIG. 3E

### Rb Atomic Line Filter at 1529.3 nm



Rb vapor temperature: 120 °C  
Rb cell length: 1 cm  
Magnetic field Strength: 140 Gauss  
Pump laser Wavelength: 780.24 nm (vacuum)  
Pump power: 10.8 mW  
Pump laser effective area: 0.778 mm<sup>2</sup>

FIG. 4

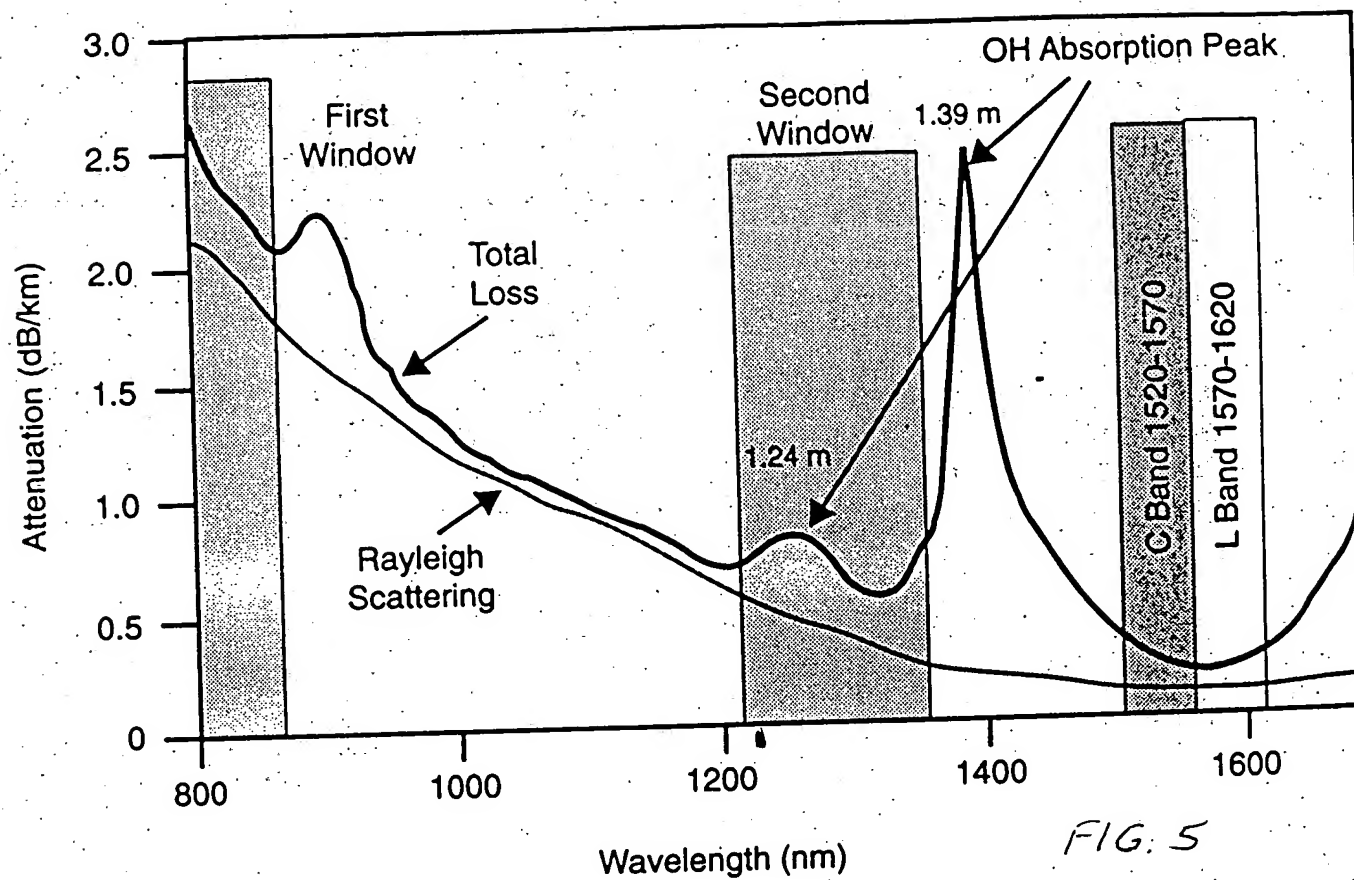


FIG. 5



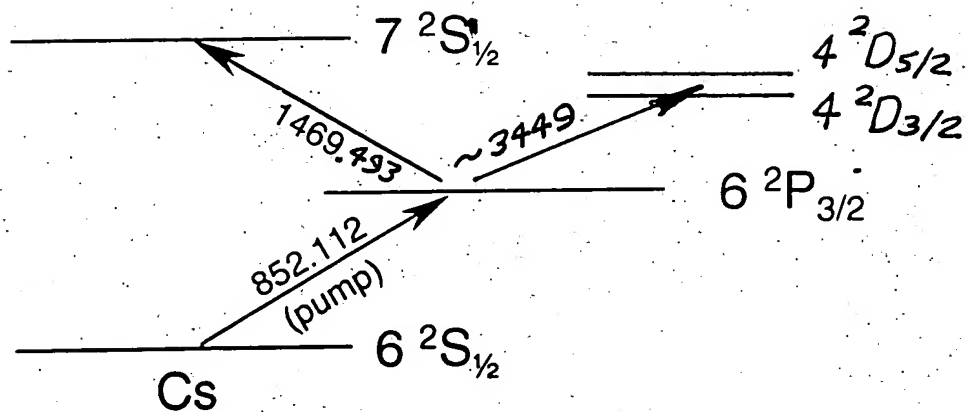


FIG. 6A

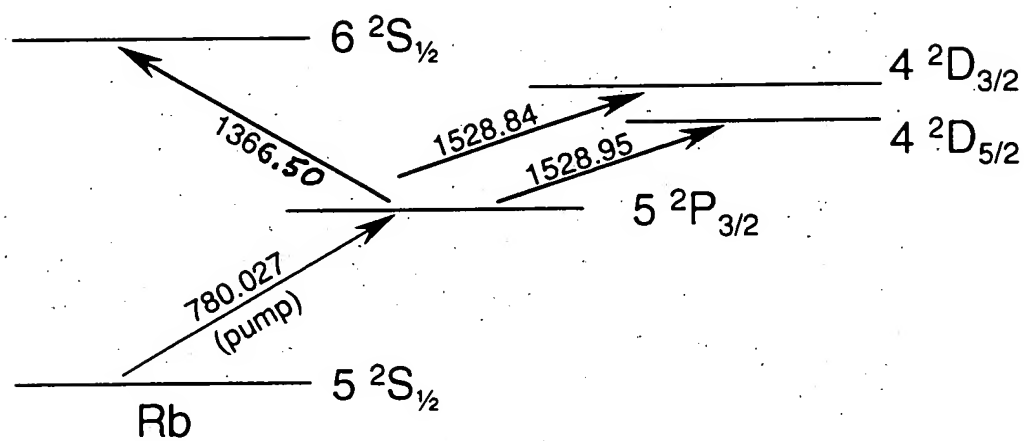


FIG. 6B

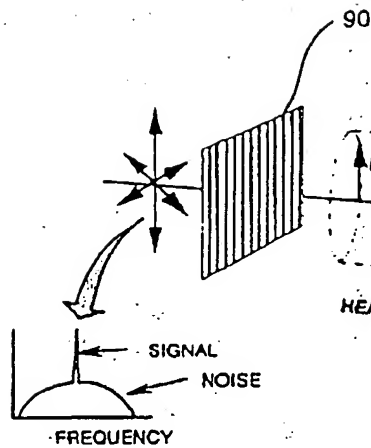


Fig. 7B

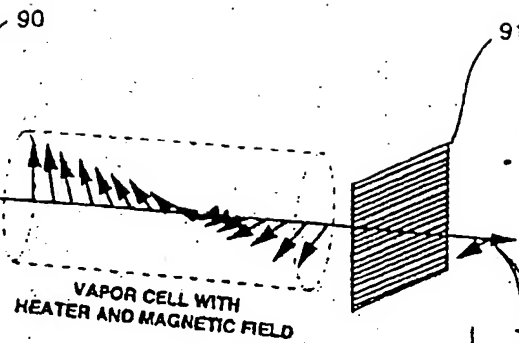


Fig. 7A

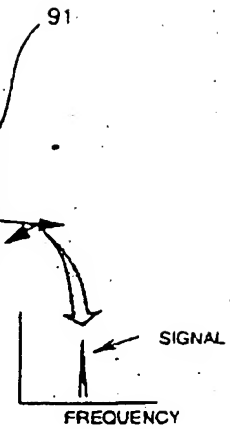


Fig. 7C

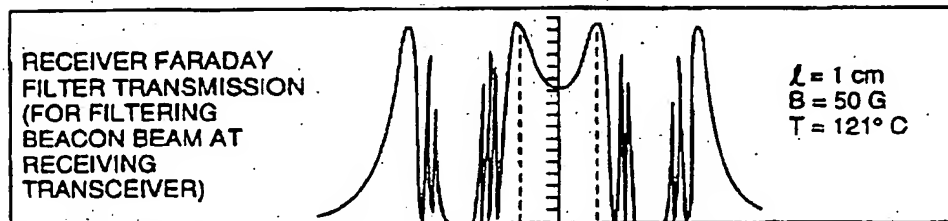


Fig. 8A

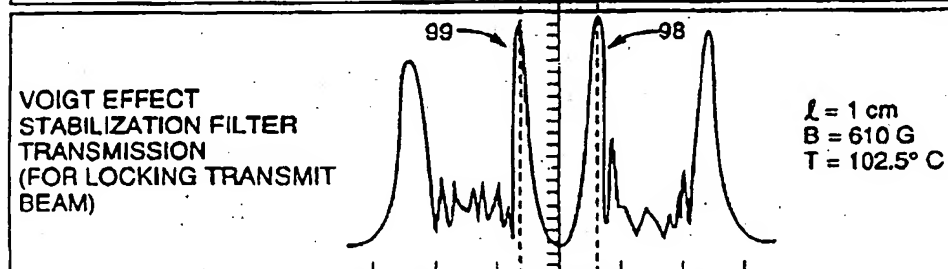


Fig. 8B

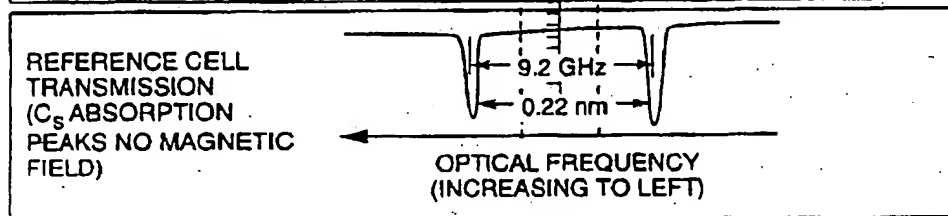
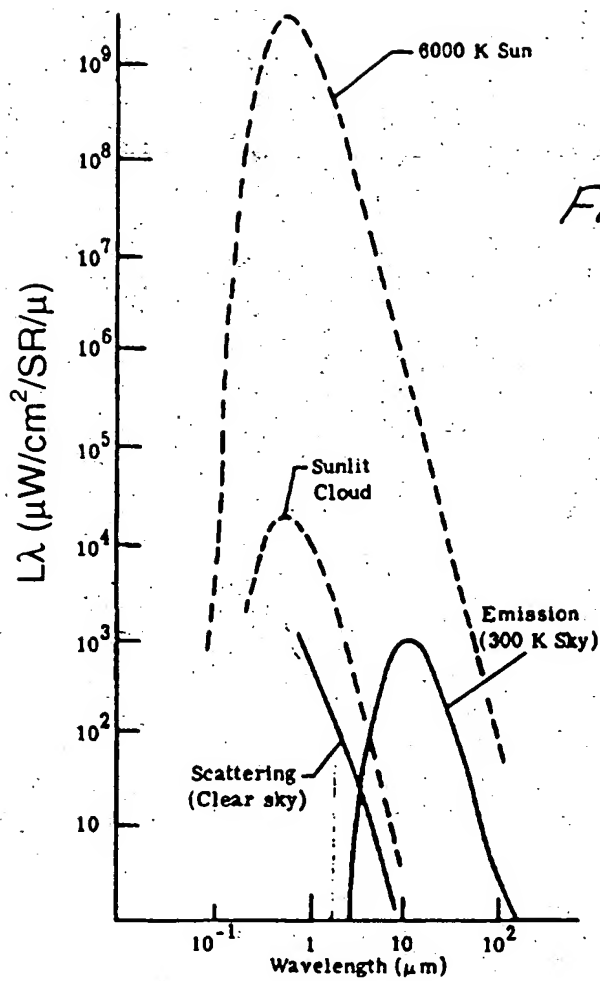


Fig. 8C



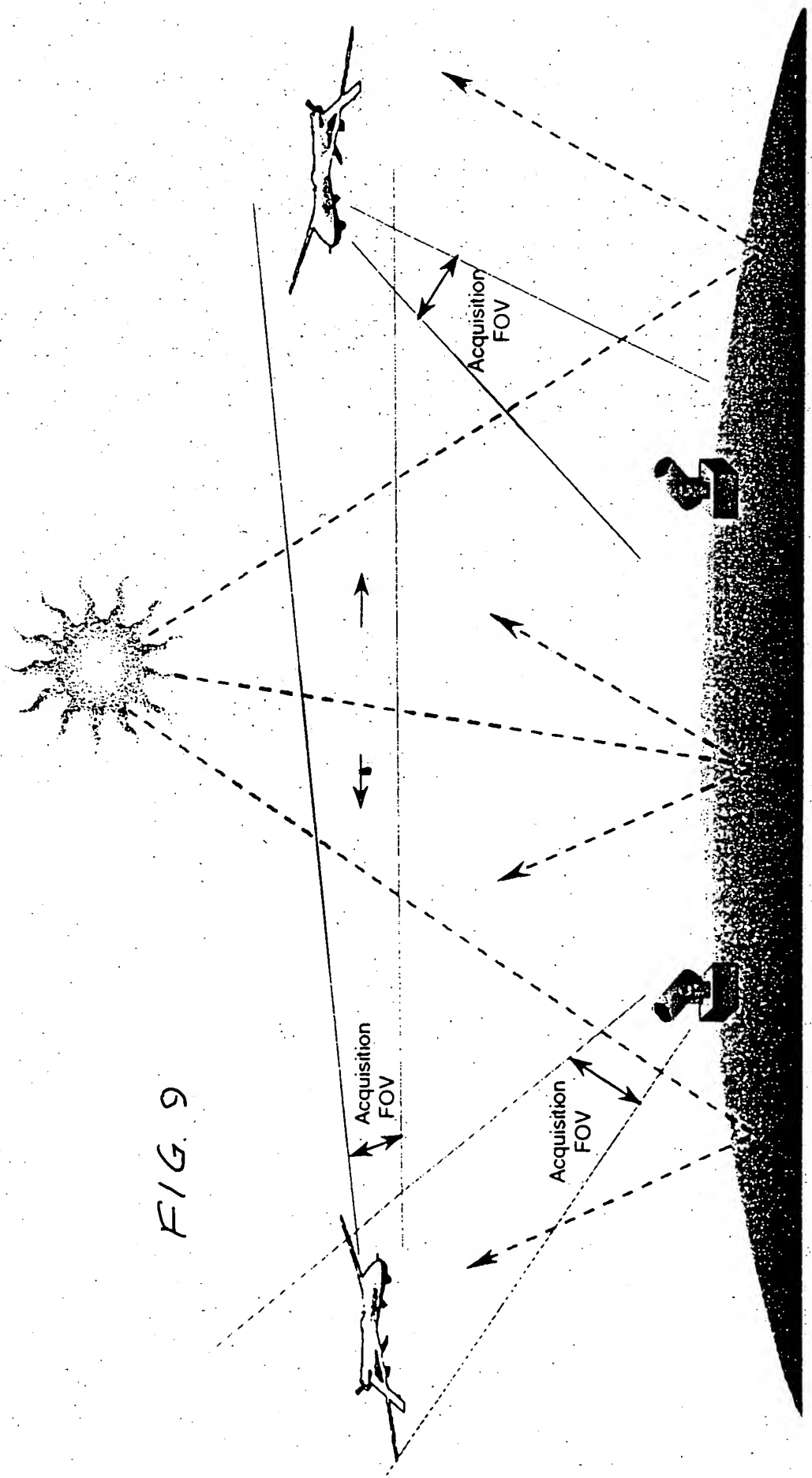


FIG. 10A

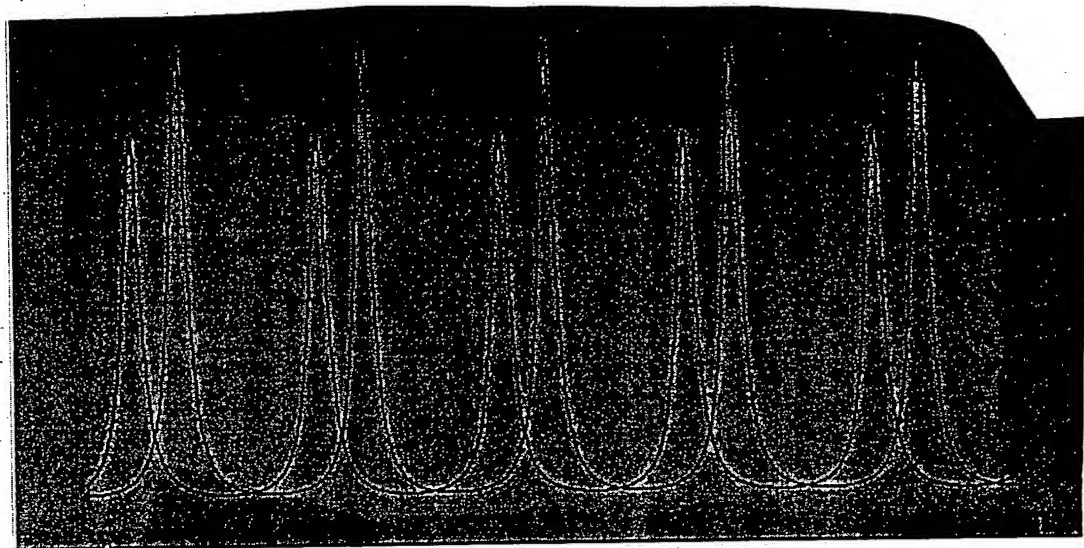


FIG. 10B

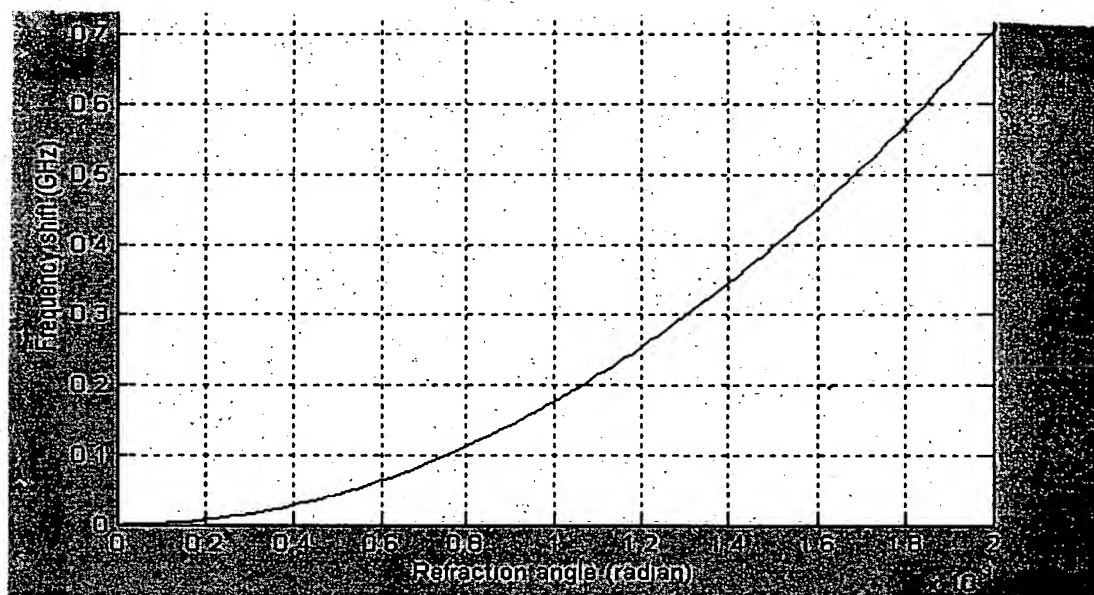


FIG. 10C



